FIG. 1

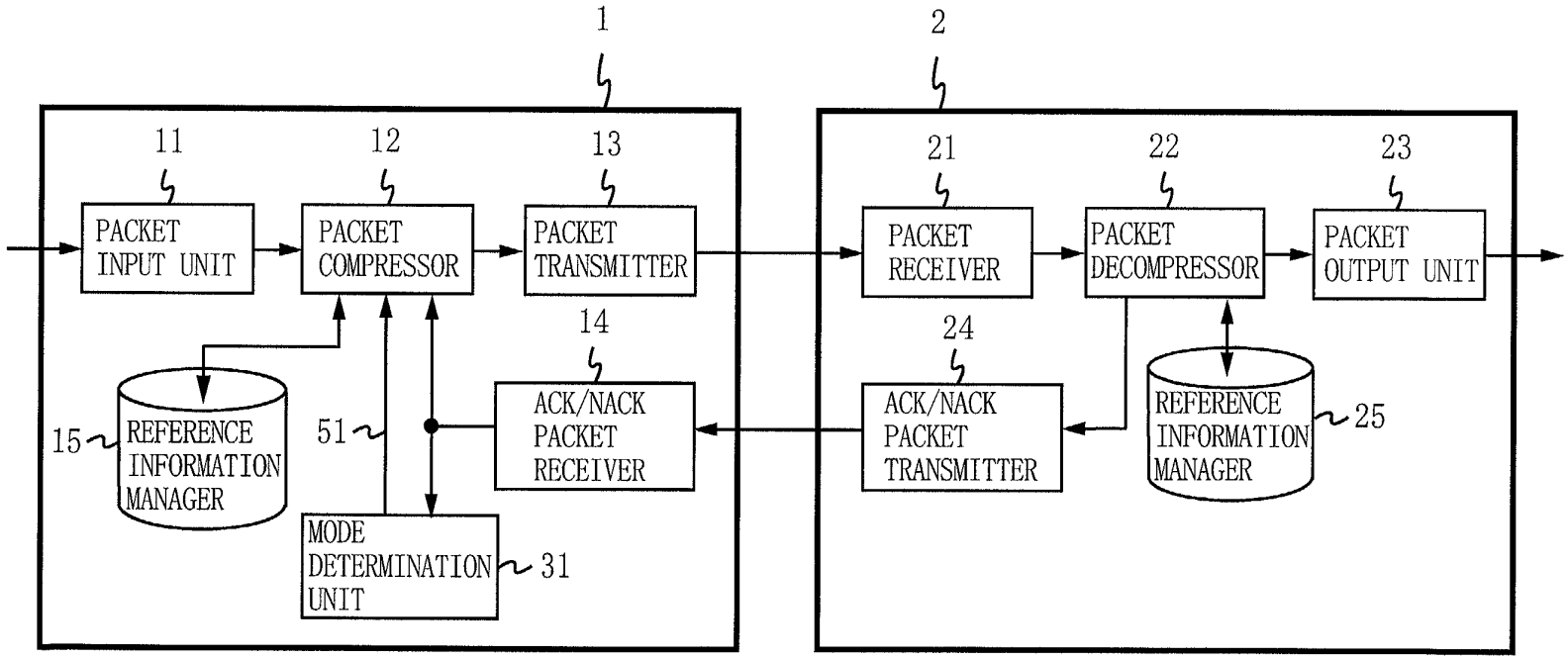

1
2
11
12
13
21
22
23
PACKET INPUT UNIT
PACKET COMPRESSOR
PACKET TRANSMITTER
PACKET RECEIVER
PACKET DECOMPRESSOR
PACKET OUTPUT UNIT
14
24
15
REFERENCE INFORMATION MANAGER
51
ACK/NACK PACKET RECEIVER
ACK/NACK PACKET TRANSMITTER
REFERENCE INFORMATION MANAGER
25
MODE DETERMINATION UNIT
31

FIG. 2

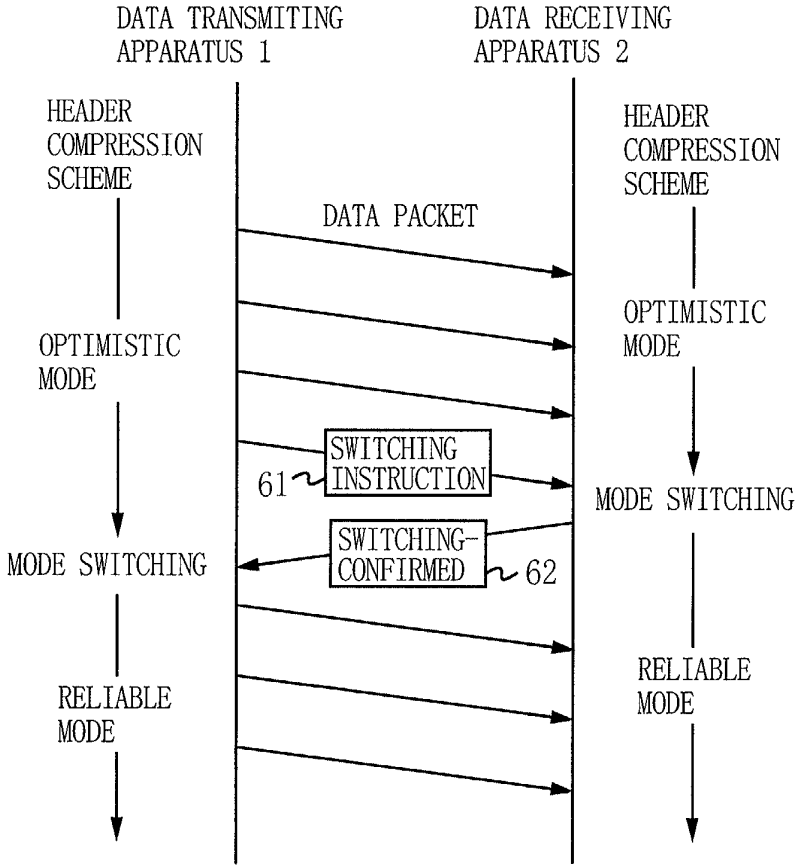

DATA TRANSMITING APPARATUS 1
DATA RECEIVING APPARATUS 2
HEADER COMPRESSION SCHEME
DATA PACKET
HEADER COMPRESSION SCHEME
OPTIMISTIC MODE
OPTIMISTIC MODE
SWITCHING INSTRUCTION
61
MODE SWITCHING
SWITCHING-CONFIRMED
62
MODE SWITCHING
RELIABLE MODE
RELIABLE MODE

FIG. 3

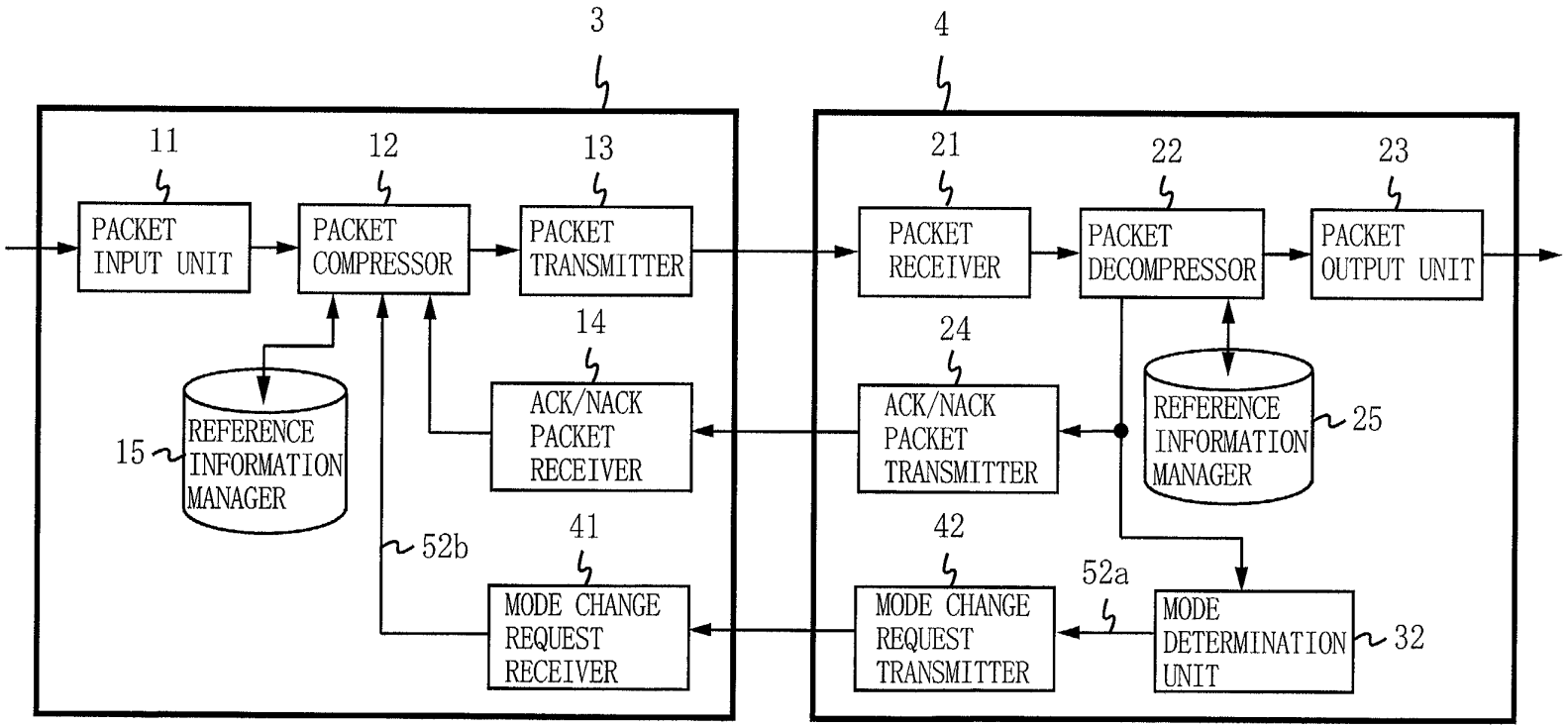

3
4
11
12
13
21
22
23
PACKET INPUT UNIT
PACKET COMPRESSOR
PACKET TRANSMITTER
PACKET RECEIVER
PACKET DECOMPRESSOR
PACKET OUTPUT UNIT
14
24
15
REFERENCE INFORMATION MANAGER
ACK/NACK PACKET RECEIVER
ACK/NACK PACKET TRANSMITTER
REFERENCE INFORMATION MANAGER
25
52b
41
42
52a
MODE CHANGE REQUEST RECEIVER
MODE CHANGE REQUEST TRANSMITTER
MODE DETERMINATION UNIT
32

FIG. 4

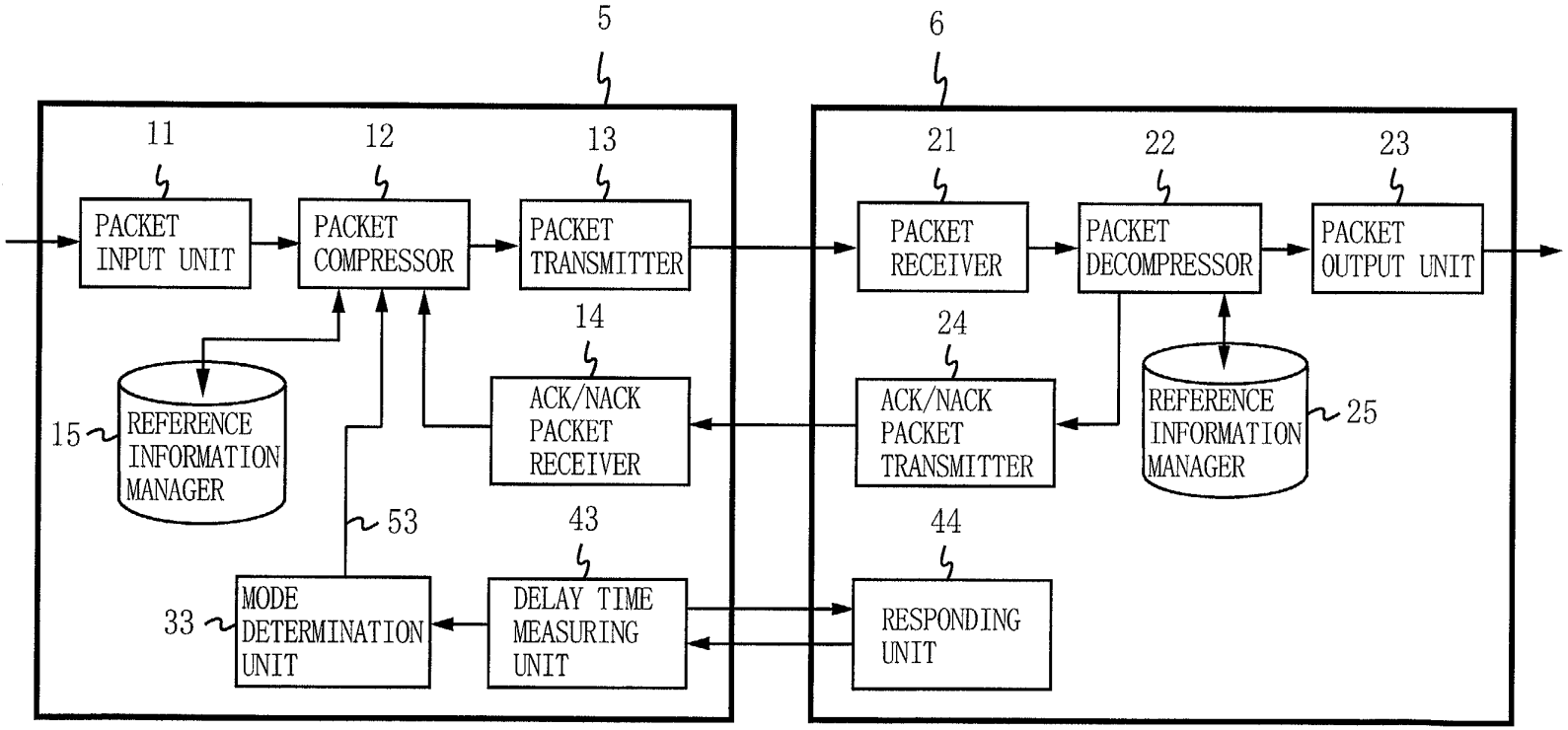
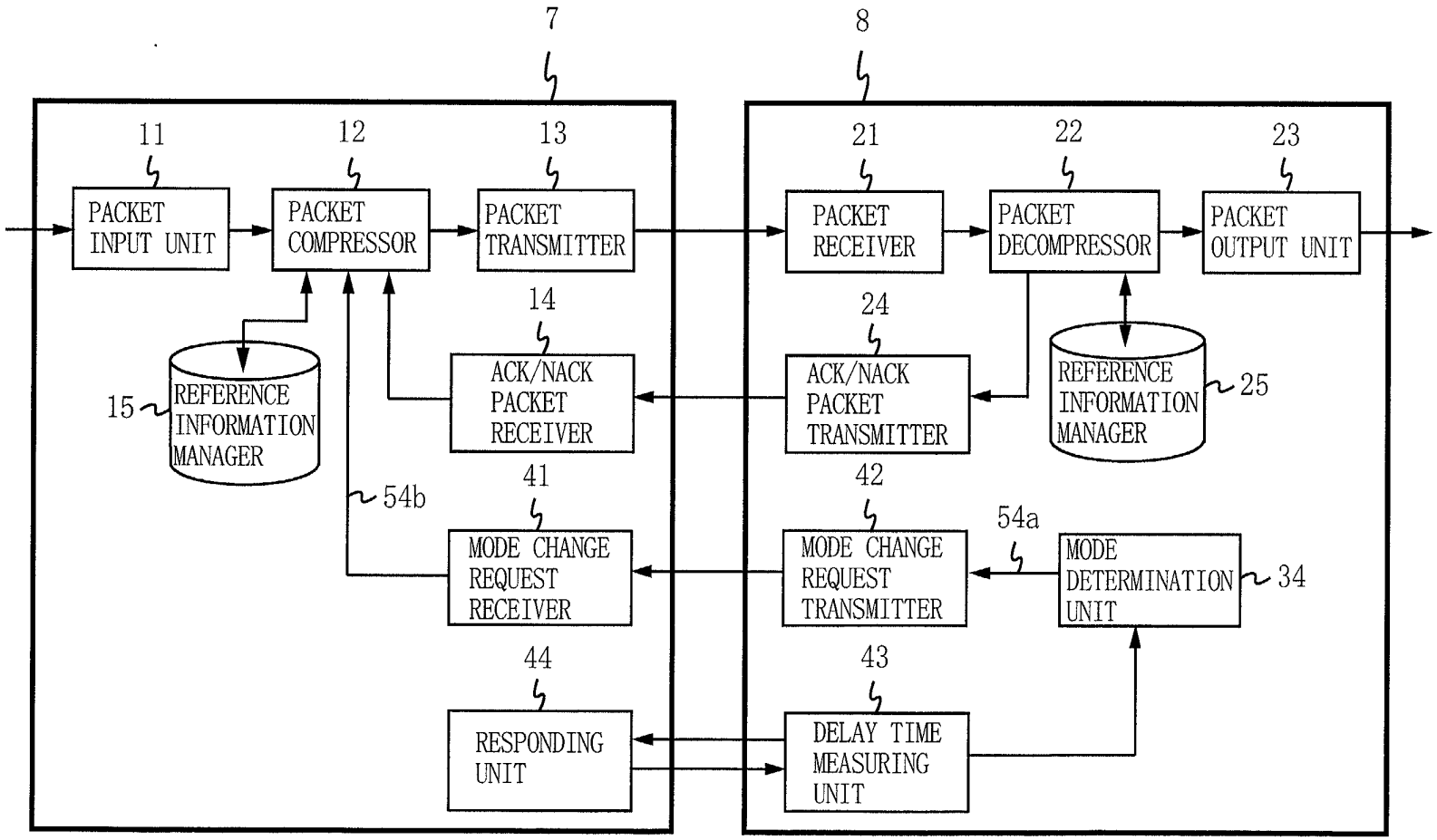

5
6
11
12
13
21
22
23
PACKET INPUT UNIT
PACKET COMPRESSOR
PACKET TRANSMITTER
PACKET RECEIVER
PACKET DECOMPRESSOR
PACKET OUTPUT UNIT
14
24
15
REFERENCE INFORMATION MANAGER
ACK/NACK PACKET RECEIVER
ACK/NACK PACKET TRANSMITTER
REFERENCE INFORMATION MANAGER
25
53
43
44
33
MODE DETERMINATION UNIT
DELAY TIME MEASURING UNIT
RESPONDING UNIT

FIG. 5


7
8
11
12
13
21
22
23
PACKET INPUT UNIT
PACKET COMPRESSOR
PACKET TRANSMITTER
PACKET RECEIVER
PACKET DECOMPRESSOR
PACKET OUTPUT UNIT
14
24
15
REFERENCE INFORMATION MANAGER
ACK/NACK PACKET RECEIVER
ACK/NACK PACKET TRANSMITTER
REFERENCE INFORMATION MANAGER
25
54b
41
42
54a
MODE CHANGE REQUEST RECEIVER
MODE CHANGE REQUEST TRANSMITTER
MODE DETERMINATION UNIT
34
44
43
RESPONDING UNIT
DELAY TIME MEASURING UNIT

JP2004-180160A

FIG. 6A

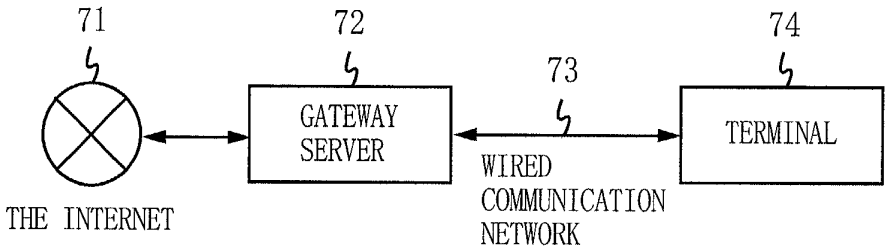


FIG. 6B

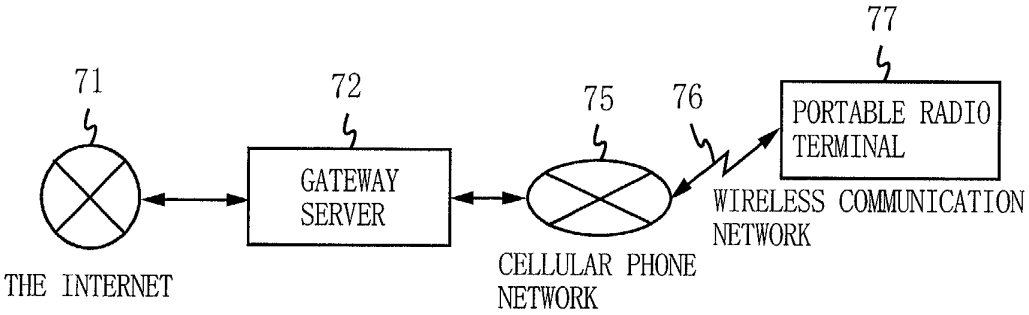
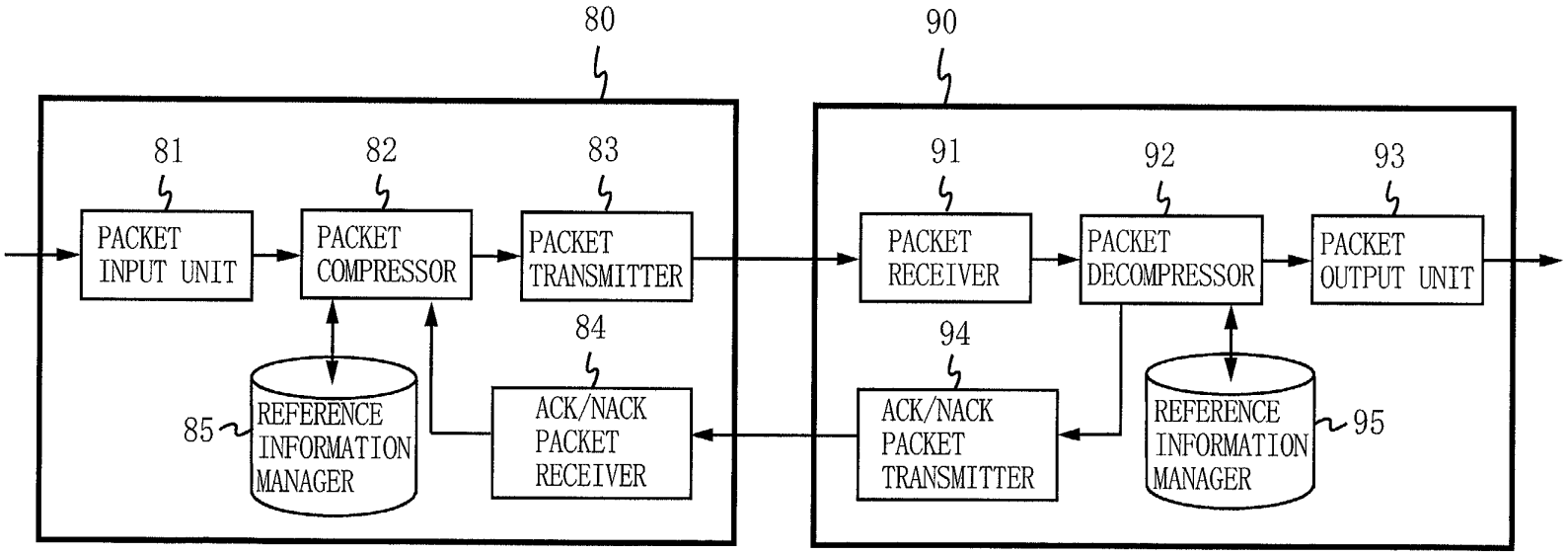
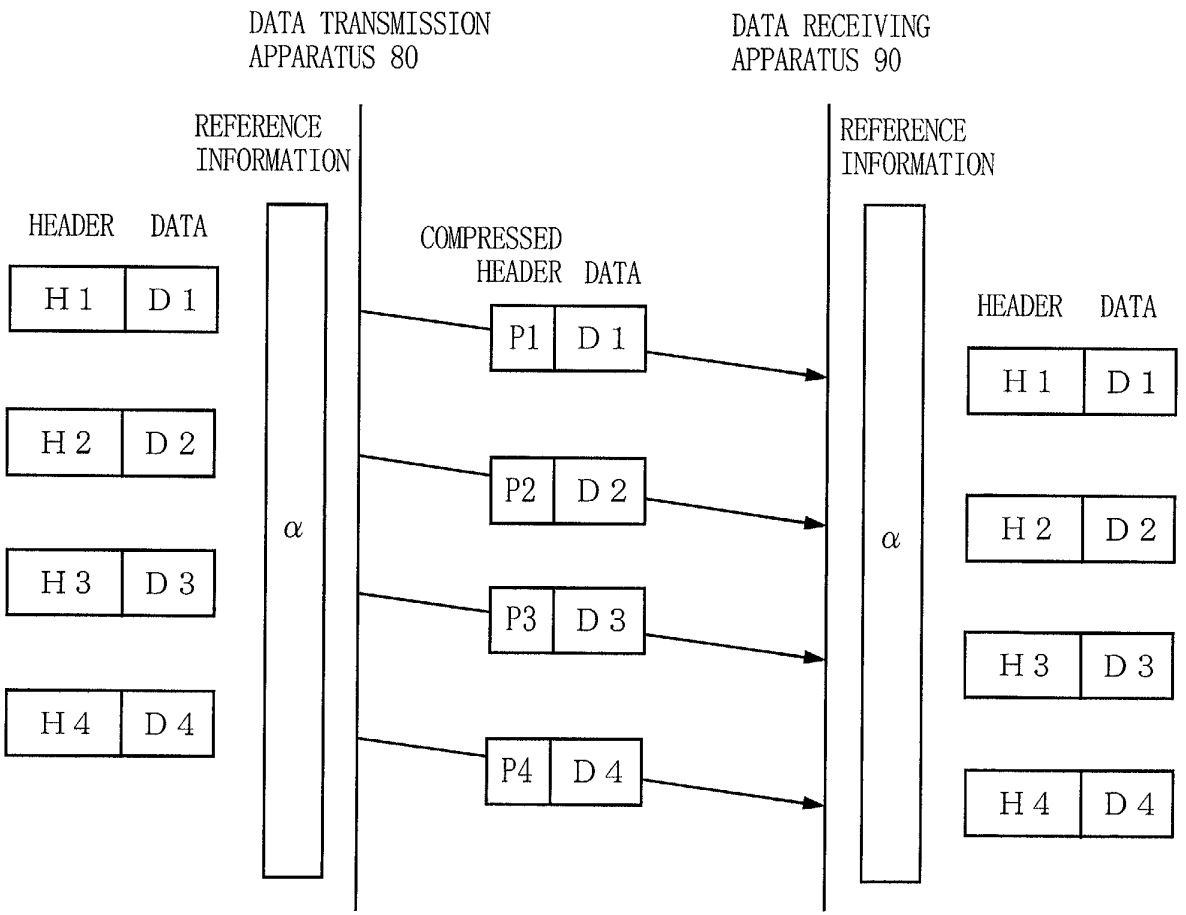


FIG. 7 PRIOR ART



TOSTBO "tme62660

FIG. 8



TOSTBO" mhE62660

FIG. 9

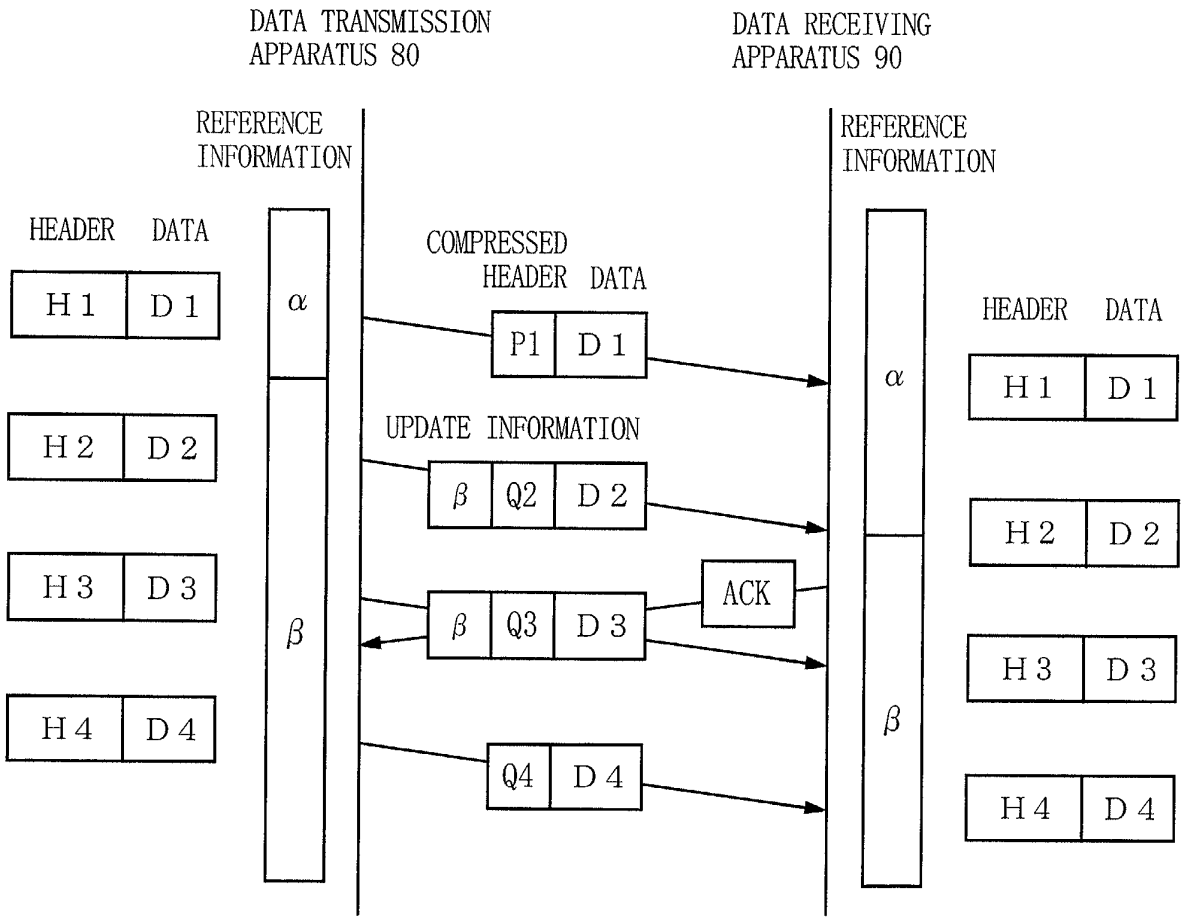


FIG. 10

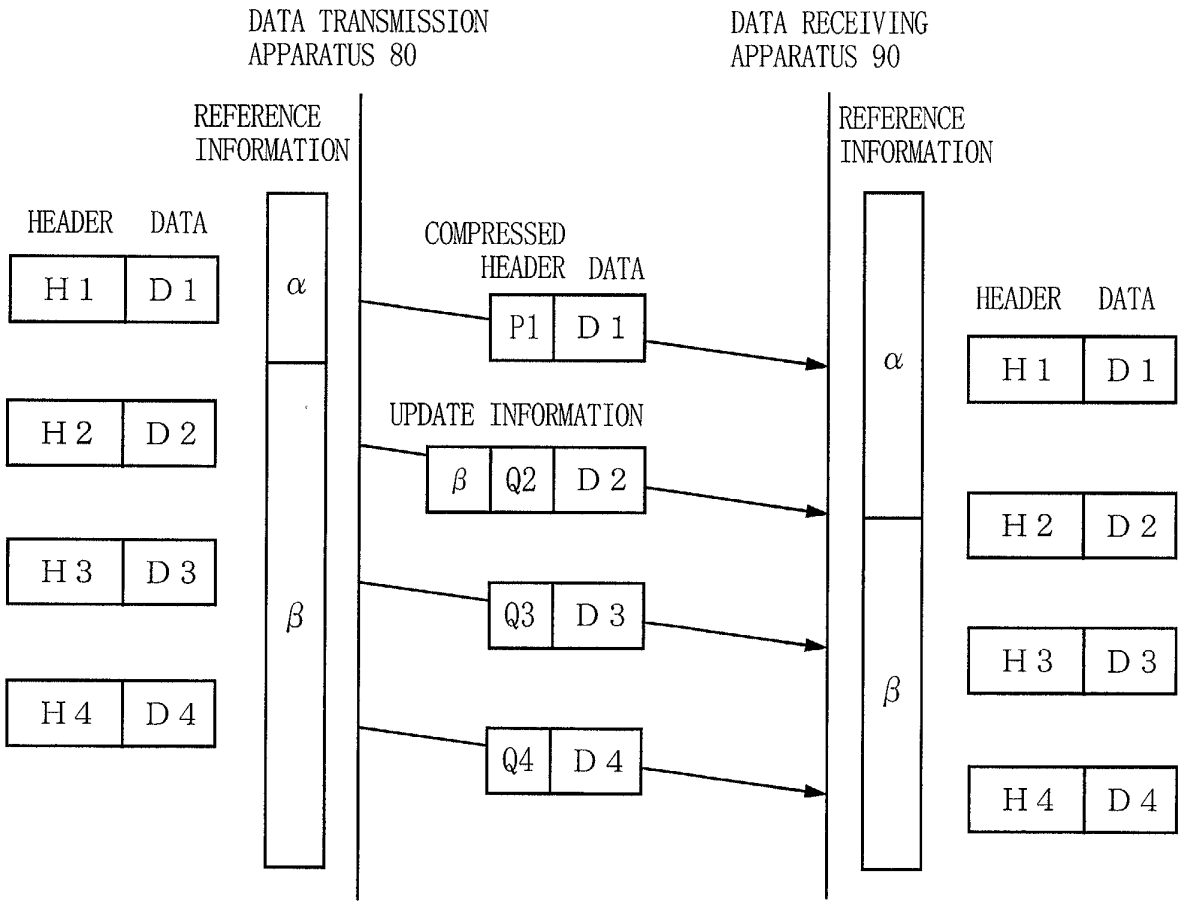
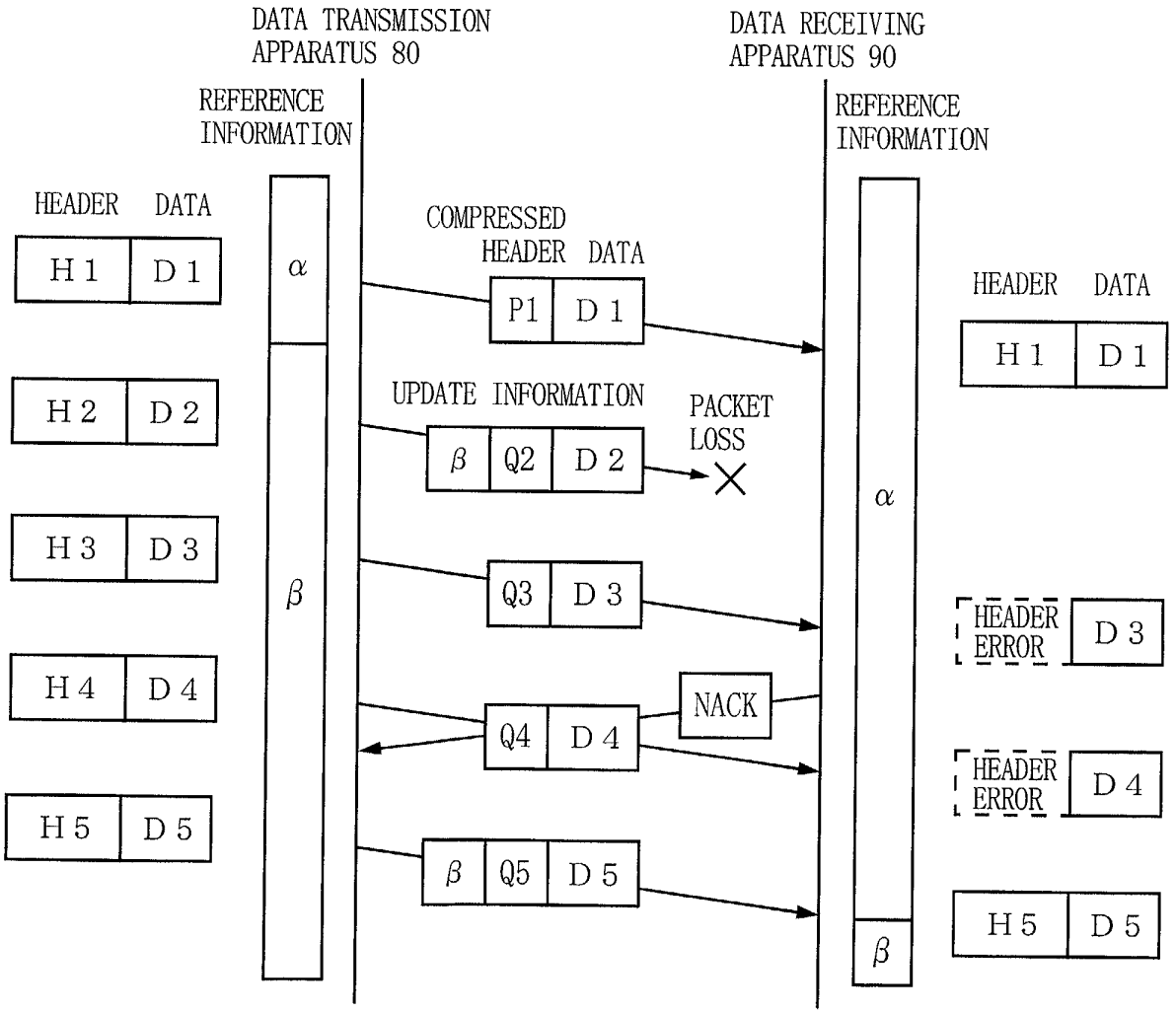

DATA TRANSMISSION APPARATUS 80
DATA RECEIVING APPARATUS 90
REFERENCE INFORMATION
REFERENCE INFORMATION
HEADER DATA
H1 D1
H2 D2
H3 D3
H4 D4
α
β
COMPRESSED HEADER DATA
P1 D1
UPDATE INFORMATION
β Q2 D2
Q3 D3
Q4 D4
α
β
HEADER DATA
H1 D1
H2 D2
H3 D3
H4 D4

FIG. 11


DATA TRANSMISSION APPARATUS 80
DATA RECEIVING APPARATUS 90
REFERENCE INFORMATION
REFERENCE INFORMATION
HEADER DATA
H1 D1
H2 D2
H3 D3
H4 D4
H5 D5
α
β
COMPRESSED HEADER DATA
P1 D1
UPDATE INFORMATION
β Q2 D2
PACKET LOSS
Q3 D3
NACK
Q4 D4
β Q5 D5
HEADER DATA
H1 D1
α
HEADER ERROR D3
HEADER ERROR D4
H5 D5
β